

Segment IV with a sensorium and Segment V with a distal group. Cornicles, chitinized rings on slightly elevated cones. Cauda and anal plate rounded.

Alate form: Color yellowish with the appendages dusky and head and thorax almost black. Wings with the veins shaded with brown. Antennae (fig. 1C) as follows: I, 0.032 mm.; II, 0.048 mm.; III, 0.008 mm.; IV, 0.08 mm.; V, 0.096 mm.; VI, 0.08 mm. Segment III with twelve to fifteen narrow transverse sensoria, IV with about five, V with about six and VI with about five and with several almost distal, small circular fringed ones. In one case a five segmented antenna was found (fig. 1D). Wings (fig. 1E) with heavy veins. Forewing with the media atrophied for some distance toward the base. Cubitus and anal arising very close together. Hindwing with the second vein arising near the base and being long and slightly curved. Cornicles mere rings slightly elevated, situated not on the margins of the abdomen but distinctly on the dorsum 0.16 mm. apart. Cauda somewhat conical. Anal plate rounded.

Described from a number of cotypes, apterous and alate, on balsam mounts, all these specimens reared by the writer, and deposited in the United States National Museum Collection.

TWO NEW GENERA OF ANTHOMYIDAE (DIPT.).

By J. M. ALDRICH, *Division of Insects, U. S. Nat. Museum.*

Pergandea, new genus.

Sixth vein reaching margin of wing; hind calypters very narrow, more than covered by the front ones. On these two characters the genus goes in Anthomyiinae, but differs from most of its congeners in having the scutellum bare below, the cruciate frontal bristles of female minute and somewhat vestigial, the vibrissae considerably above the oral margin but not approximated, front in male almost one-third the head width, female destitute of cerci but with small thorns below on genital segment. Palpi and proboscis normal, hind coxae bare behind, pteropleura and hypopleura entirely bare. Third antennal joint hardly twice the second, the arista unique among Anthomyiidae known to the writer in being almost exactly that of *Musca domestica*—short but thin, greatly enlarged at base, with long and comparatively few rays above and below (see figure). Lower hind part of head considerably swollen, a deep groove behind the eye bounding this region upwardly.

Type, *Pergandia apivora*, new species.

Pergandia apivora, new species.

Yellow, the following parts black or blackish: thorax except apex of scutellum and a few indistinct marks on sides, ocellar triangle and more or less of vertex and back of head, third antennal joint, middle of proboscis, the U-shaped

sclerite in front of mouth (tormae), an indistinct wide interrupted dorsal stripe on abdomen, and the tarsi. Front of male almost one-third the head-width, that of female hardly wider, male with usually at least one very minute inner (cruciate) bristle; ocellar triangle small; parafrontals with light-brown pollen, changing to faintly silvery above antennal insertion; transverse impression wide, rather soft and wrinkled; bucca half the eyeheight.

Thoracic chaetotaxy: dorsocentrals 4-2, anterior acrostichals only hair-like, humeral 2, interhumeral 1, posthumeral 1, notopleural 2, intra-alar 2, supralar 1, prealar at largest half the following, but much reduced in some cases, even absent, scutellar 2 pairs, sternopleural 1-1, prothoracic 1 large.

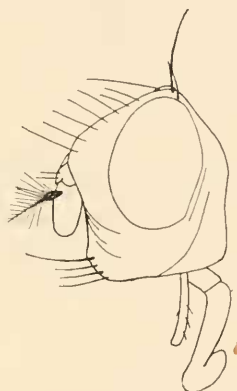


FIG. 1—*Pergandia apivora* ALDRICH—head of male

Front tibia with one bristle above middle on outer hind side, and one below middle on front; middle tibia with one stout bristle on outer front below middle, one on outer hind and one on inner hind at about the same level, above the latter two are two directly behind; hind tibia of male with a few delicate cilia on inner and outer flexor, 3 behind and 5 on outer hind; in the female the hind tibia has 2 very small on outer flexor, 2 on hind and 3 on outer hind.

Abdomen of male broad at base, deep and a little compressed apically, the hypopygium rather large; fifth sternite excised in a deep U, the arms convergent and ending in a sharp, curved point, laterad of which are a few bristles; a short lunule of the fifth tergite is visible; first genital segment rather prominent, with a few bristles; second genital segment of moderate size, hairy; inner forceps very short, apparently coalescent, outer forceps very long and slender, almost parallel, the tips ascending and divergent; penis very long and slender, jointed at middle, almost attaining the hind coxae.

Female genitalia not much visible, retracted; the penultimate segment bears a dense row of hairs which curl over the apex, last segment with a few thorns below.

Wings yellowish, veins decidedly yellow; third vein bare, costal spine small, hind crossvein straight, last segment of fourth vein hardly exceeding the one before it.

Length, $4\frac{1}{2}$ to 6 mm.

Twenty-two males, twenty-seven females; Carondelet, Mo. (Pergande); one male, Santa Fe, N. M. (Townsend); one male, Pecos, N. M. July 7 (Cockerell).

Type, male, and allotype, female, from the Missouri material; all the rest paratypes (U. S. M. No. 22172).

The Missouri specimens are numbered 86290, under which Mr. Pergande's note is as follows: "Oct. 9, 1877. Found in the clay banks north of Carondelet numerous cells of a species of *Bombus* (later determined as *Anthophora abrupta* Say). Some of the cells were infested by dipterous parasites, of which the empty cocoons could be found in large numbers; one cell contained cocoons which seemed to be sound yet, they are placed in bottle marked 86290." Dates of issuing are marked on several labels, ranging from April 11 to May 2, 1878—all emerging apparently the following spring. It is an interesting commentary on the state of Anthomyid classification, that this material should have stood unidentified in the Bureau and later in the National Museum for more than forty years.

Sphenomyia, new genus.

$\sigma \phi \eta' \nu$, wedge; $\mu \nu \iota \alpha$, fly.

Belongs in subfamily Phaoniinae (sixth vein not reaching margin of wing, scutellum bare below, hind calypter projecting widely behind front one) in which it is one of the genera. Head as in *Limnophora* except in having in the female a sharply-defined, long wedge-shaped frontal triangle which reaches to the lunule and is highly polished throughout; orbits dull, antennae, palpi and proboscis of ordinary form; arista bare (at 20 diameters), third antennal joint not twice the second, not quite reaching the vibrissae, which are at oral margin. Prealar and anterior acrostichal bristles lacking; dorsocentrals 4-2; sternopleurals 1-1; notopleurals 2; humeral 2; intrahumeral 1; posthumeral (presutural) 1; intra-alar 2; postalar 2; supra-alar 1; scutellar 2 pairs (female); pteropleura and hypopleura bare. Abdomen without trace of paired spots, the female genital segment as in *Hebecnema* (*Xenaricia* Malloch). Legs weakly bristled, as in *Hebecnema*, hind coxae bare behind. Wing as in *Hebecnema*, except for the half-dozen hairs above and the same below, on basal part of third vein.

Type species, *kincaidi*, described below.

Sphenomyia kincaidi, new species.

Wholly black except bases of halteres, which are brown, and calypters, which are white; Parafacials in profile above as wide as third antennal joint.

silvery pollinose shading to gray on bucca and changing suddenly to brown just about the insertion of the antennae; bucca one-sixth eyeheight; orbitals six, ocellars and verticals strong; eyes bare. Thorax subshining, halteres including most of stem black. Abdomen oval, shining black with a slight satiny sheen, weakly bristled, terminal segment without jointed appendages, but with a few curved spines ventrally at apex. Wing subhyaline, fourth vein straight, its last segment $1\frac{1}{2}$ times the preceding, costal spine small, hind crossvein straight. Legs black; front tibia with no bristles except at tip; mid tibia with two on outer hind side; hind tibia with two on outer flexor, two on outer extensor, and one small at middle on extensor, which might almost be called the calcar, but is of insignificant size.

Length 4.1 mm.

Type, female, collected at Fox Point, Alaska, by Professor Trevor Kincaid, on July 28, 1899, when he was on the Harriman Alaska Expedition. Type No. 22170, U. S. N. M.

A NEW SPECIES OF BUCCULATRIX INJURIOUS TO HOLLYHOCK (LEP.).

BY AUGUST BUSCK.

Bucculatrix althaeae, new species.

Face white, in some specimens suffused with light fuscous. Tuft on head light straw-colored mixed with darker yellowish brown hairs. Eyecaps straw-colored, suffused with light brown. Antennae light ochreous with black annulations. Thorax straw-yellow with deep ocher-yellow scales laterally and in the center and with dark fuscous posterior margin. Ground color of the forewings white, strongly suffused with yellow, ochreous and blackish brown scales; four large illdefined costal patches of yellow, heavily mottled with reddish brown; one covering the base of the wing, the second at basal third, the third at apical third and the fourth just before apex; these costal patches are vaguely continued across the wing as illdefined fasciae with the white ground color showing between them as three narrow outwardly oblique costal streaks; on the middle of dorsum just within the edge is a large tuft of black-tipped raised scales. Cilia yellowish with a broken black transverse line. Hindwings and cilia dark fuscous. Abdomen yellowish fuscous with light yellow anal tuft. Legs dark brown with narrow yellow tarsal annulations.

Alar expanse 9-10 mm.

Habitat: Stanford University, California (Miss Isabel McCracken); Ventura, California (S. H. Essig).

Foodplant: Hollyhock.

Type—U. S. N. M. Cat. No. 22195.

The species is close to *B. quadrigemina* Braun, but considerably